

METHOD AND APPARATUS FOR CONTROLLING RADIATION BEAM  
INTENSITY DIRECTED TO MICROLITHOGRAPHIC SUBSTRATES

ABSTRACT OF THE DISCLOSURE

A method and apparatus for controlling an intensity distribution of a radiation beam directed to a microlithographic substrate. The method can include directing a radiation beam from a radiation source along the radiation path, with the radiation beam having a first distribution of intensity as the function of location in a plane generally transverse to the radiation path. The radiation beam impinges on an adaptive structure positioned in the radiation path and an intensity distribution of the radiation beam is changed from the first distribution to a second distribution by changing a state of the first portion of the adaptive structure relative to a second portion of the adaptive structure. For example, the transmissivity of the first portion, or inclination of the first portion can be changed relative to the second portion. The radiation is then directed away from the adaptive structure to impinge on the microlithographic substrate.

FILED 03/05/01